

(b) a complement of the nucleotide sequence, wherein the complement and the nucleotide sequence consist of the same number of nucleotides and are 100% complementary.

5. (Amended) The polynucleotide of Claim 1 wherein the polynucleotide encodes a polypeptide selected from the group consisting of SEQ ID NOS:4, 12, and 16.

6. (Amended) The polynucleotide of Claim 1 wherein the polynucleotide comprises a nucleotide sequence selected from the group consisting of SEQ ID NO: 3, 11, and 15.

24. (Amended) A recombinant DNA construct comprising the polynucleotide of Claim 1 operably linked to at least one regulatory sequence.

25. (Amended) A method for altering the level of pathogen resistance in a plant, the method comprising the steps of:

- (a) transforming a plant cell with the recombinant DNA construct of Claim 24;
- (b) culturing the transformed plant cell under conditions suitable for the expression of the polynucleotide;
- (c) maintaining the plant cell under conditions that are suitable for its development into a plant; and
- (d) comparing the level of pathogen resistance of the plant cell containing the polynucleotide and a plant cell not containing the polynucleotide.

Please add the following claims 26-32:

26. (new) A vector comprising the polynucleotide of Claim 1.

27. (new) A cell comprising the recombinant DNA construct of Claim 24.

28. (new) The cell of Claim 27, wherein the cell is selected from the group consisting of a yeast cell, a bacterial cell and a plant cell.

29. (new) A virus comprising the recombinant DNA construct of Claim 24.

30. (new) A transgenic plant comprising the recombinant DNA construct of Claim 24.

31. (new) A method for transforming a cell, comprising introducing into a cell recombinant DNA construct of Claim 24.

32. (new) A method for producing a transgenic plant comprising

- (a) transforming a plant cell with recombinant DNA construct of Claim 24, and
- (b) regenerating a plant from the transformed plant cell.

REMARKS

Claims 1-6 and 24-32 are now pending, with claim 1 being the sole independent claim.

Claims 7-23 have been canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 1, 5-6, and 24-25 have been amended, and Claims 26-32 have been added. The specification has been amended to correct typographical errors. No new matter is believed to have been added.

RESPONSE TO RESTRICTION REQUIREMENT

Applicants hereby elect, with traverse, the claims of Group I and the nucleotide sequences of SEQ ID NOs:3, 11, and 15 (which encode SEQ ID NOs:4, 12, and 16) and submit that now pending claims 1-6 and 24-32 are directed to Group I.

In support of the election with traverse, Applicants refer to Example 3 of the application as filed (page 20, line 26 to page 23, line 14); the nucleotide sequences shown in SEQ ID NO:3 and SEQ ID NO:11 are portions of the nucleotide sequence shown in SEQ ID NO:15. Based on the Clustal method of alignment the polypeptides shown in SEQ ID NO:4 and SEQ ID NO:12 are 100% identical to SEQ ID NO:16. See below Table A, which shows the percent identity determined using the Clustal alignment method for all the polypeptides in the application.

TABLE A
Percent Identities of the Amino Acid Sequences of the Present Application

SEQ ID NO:	2	4	6	8	10	12	14	16	17
2	***	15.3	13.6	47.5	49.2	47.5	16.9	47.5	45.8
4	15.3	***	13.3	16.7	41.7	100.0	15.5	100.0	47.6
6	13.6	13.3	***	90.0	46.7	86.7	98.3	86.7	40.0
8	47.5	16.7	90.0	***	47.7	85.2	82.4	86.5	40.3
10	49.2	41.7	46.7	47.7	***	43.3	38.9	38.3	42.1
12	47.5	100.0	86.7	85.2	43.3	***	84.5	100.0	39.1
14	16.9	15.5	98.3	82.4	38.9	84.5	***	84.5	33.7
16	47.5	100.0	86.7	86.5	38.3	100.0	84.5	***	34.1
17	45.8	47.6	40.0	40.3	42.1	39.1	33.7	34.1	***

Please charge any requisite fee or credit any overpayment to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

In view of the foregoing, a favorable examination of the application on its merits is earnestly solicited.

Applicants' undersigned may be reached at the below-listed numbers.

Respectfully submitted,

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MARKED-UP VERSION SHOWING CHANGES MADE

In showing changes made below, deletions are shown in strikethrough and additions are shown as underlined.

IN THE SPECIFICATION:

Paragraph at page 1, lines 3-5:

This application claims the benefit is a continuation in part of International Application No. PCT/US99/25953, filed November 4, 1999, which claims priority of U.S. Provisional Application No. 60/107,242, filed November 5, 1998.

Table 2 on page 17:

TABLE 2
cDNA Libraries from Corn, Rice, and Wheat

Library	Tissue	Clone
ed	Corn Developing Tassel	edt1e.pk001-16
cdt1c		cdt1c.pk001.16
p0	Corn Young Shoot	p0006.ebyve
006		82rx
p0006		p0006.cbyvc82rx
r10n	Rice 15 Day Old Leaf*	r10n.pk0063-d10
r10n	Rice Root of Two Week Old Developing Seedling	r10n.pk0063.d10
rr1		rr1.pk0001.a11
w	Wheat Root From 7 Day Old Etiolated Seedling*	wre1n.pk012
wre1n		2-e2
wre1n		wre1n.pk0122.c2

* These libraries were normalized essentially as described in U.S. Patent No. 5,482,845, incorporated herein by reference.

Table 3 on page 21:

TABLE 3
BLAST Results for Clones Encoding Polypeptides Homologous to NPR1

Clone	Status	SEQ ID NO:	BLAST pLog Score NCBI GI No. 1773295
edt1c.pk00	EST	2	13.22
4.16			
cdt1c.pk001.l6			
rr1.pk0001.	EST	4	32.30
a11			
cdt1c.pk001.l6			
wre1n.pk04	EST	6	15.00
22.e2			
cdt1c.pk001.l6			

Table 4 on page 21:

TABLE 4
BLAST Results for Sequences Encoding Polypeptides
Homologous to NPR1

Clone	Stat us Status	SEQ ID NO:	BLAST pLog Score 1773295
p0006.cbyve	FIS	8	60.22
82rx			
p0006.cbyvc82rx			
rl0n.pk0063.	EG	10	138.00
d10:fis	♦		
rl0n.pk0063.d10:fis	CGS		
rr1.pk0001.a	FIS	12	91.22
11:fis			
rr1.pk0001.a11.fis			
wre1n.pk012	FIS	14	22.52
2.e2:fis			
wre1n.pk0122.c2:fis			

Table 5 on page 22:

TABLE 5
BLAST Results for Sequences Encoding Polypeptides
Homologous to NPR1

Clone	Status	SEQ ID NO:	BLAST pLog Score
rr1.pk0001.a	CGS	16	1773295
44:egs			100.00
rr1.pk0001.a11:cgs			

Table 6 on page 22:

TABLE 6
Percent Identity of Amino Acid Sequences Deduced From the Nucleotide Sequences
of cDNA Clones Encoding Polypeptides Homologous to NPR1

Clone	SEQ ID NO:	Percent Identity to
edt1c.pk001.	2	1773295
16		45.8
cdt1c.pk001.16		
rr1.pk0001.a	4	47.6
44		
rr1.pk0001.a11		
wre1n.pk012	6	40.0
2.e2		
wre1n.pk0122.c2		
p0006.ebyve	8	40.3
82rx		
p0006.cbyvc82rx		
rl0n.pk0063.	10	42.1
d10:fis		
rl0n.pk0063.d10:fis		
rr1.pk0001.a	12	39.1
44:fis		
rr1.pk0001.a11:fis		
wre1n.pk012	14	33.7
2.e2:fis		
wre1n.pk0122.c2:fis		
rr1.pk0001.a	16	34.1
44:egs		
rr1.pk0001.a11:cgs		

IN THE CLAIMS:

1. (Amended) An isolated polynucleotide comprising: (a) a nucleotide sequence encoding at that encodes an NPR1 polypeptide having NPR1 activity, wherein the polypeptide has an amino acid sequence identity of at least 80% sequence identity based on the Clustal method of alignment when compared to a polypeptide selected from the group consisting of SEQ ID NOS:2, 4, 6, 8, 10, 12, 14, and 16, or (b) a complement of the nucleotide sequence, wherein the complement and the nucleotide sequence consist of the same number of nucleotides and are 100% complementary.

5. (Amended) The polynucleotide of Claim 1 wherein the polynucleotide encodes a polypeptide selected from the group consisting of SEQ ID NOS:2, 4, 6, 8, 10, 12, 14, and 16.

6. (Amended) The polynucleotide of Claim 1 wherein the polynucleotide comprises a nucleotide sequence selected from the group consisting of SEQ ID NO:1, 3, 5, 7, 9, 11, 13, and 15.

24. (Amended) A recombinant DNA construct chimeric gene comprising the polynucleotide of Claim 1 operably linked to at least one regulatory sequence.

25. (Amended) A method for altering the level of pathogen resistance in a plant, the method comprising the steps of:

- (a) transforming a plant cell with the recombinant DNA construct of Claim 24 a chimeric gene containing the polypeptide of Claim 1;
- (b) culturing the transformed plant cell under conditions suitable for the expression of the polynucleotide chimeric gene;
- (c) maintaining the plant cell under conditions that are suitable for its development into a plant; and
- (d) comparing the level of pathogen resistance of the plant cell containing the polynucleotide of Claim 1 and a plant cell not containing the polynucleotide of Claim 1.